

UK Launch for Eurocard controller

A board level systems controller based on the Z80A CPU and with memory, I/O and a BASIC interpreter has been developed in the UK by Vertec.

Packaged on a 100 x 160 mm Euro-card, the P5000 has 24 programmable I/O lines allowing links to parallel devices such as handshaked or strobed binary coded decimal (BCD) instruments or to electrical equipment such as a motor. The price is £295.

Two serial communications lines can connect to other computers and provide direct linking to a CRT. Timers are available for generation of timeout periods or delays. All of these facilities are controlled from a PROM-resident 12k BASIC interpreter.

As well as the 3.7 or 1.8 MHz Z80, the card includes 24k of PROM (2764), 16k of RAM (6116-type 4k chips), two chainable CTC timer channels, two asynchronous communications lines with switch-selectable baud rates

and priority interrupts for timers and communications.

The Z80 control signals and decoded address lines go to the rear of the card on a DIN connector for expanding the system. Cards that can be used include battery-backed memory, A/D and D/A converters, mains switches, display driver, realtime clock and cassette or 4/20 mA current loops.

An optional PROM programmer module connects to the I/O port and uses utility software routines to program 2716, 2732 or 2764 chips on board.

The 12k BASIC interpreter includes 8-digit floating point arithmetic and a wider range of commands and functions than standard tiny BASICs. Machine code subroutines can be linked directly using the CALL instruction. (*Vertec Ltd (Electronics), Maxwell Building, 43 The Crescent, Salford, Manchester M5 4WT, UK. Tel: 061-736 8502*)

Incircuit 68000 developer has 'unique' non-realtime breakpoint

A development tool which emulates the 68000 microprocessor incircuit at speeds of up to 10 MHz has been released by Mostek. The AIM-68000 has project debug capabilities for both hardware and software.

Programs can be executed in real-time, single step or step with register break modes. The last of these gives a non-realtime breakpoint defined by the contents of the program counter and specified registers. This feature is unique to the AIM-68000, according to Mostek.

There are 16 kwords of emulation ROM mappable into eight 2 kword blocks. These blocks are addressable on any 2 kword boundary and can be mapped as supervisor/user or program/data or both. They can be write protected for ROM/PROM simulation.

The incircuit emulator can be operated either in a standalone mode without a users test system. This gives software debugging including exception vector handlers. All 68000 exception vectors may be mapped for servicing by either the AIM-68000 software or the users own routines.

Realtime breakpoint facilities available to user include eight software, one timer and one hardware breakpoint. There is programmable interaction between them. The unit is on sale throughout Europe. (*Mostek (UK) Ltd, Masons House, 1 Valley Drive, Kingsbury Road, London NW9, UK. Tel: 01-204 9322*)



Emulation for the 68000

CMOS gate array breaks 2µm channel length barrier

National Semiconductor has released its first CMOS gate array with 2 µm channel lengths. The SCX6224 uses Nat Semi's M² CMOS process for its 2400 gate array. Internal gate delay is claimed to be 1 ns at input frequencies of up to 125 MHz.

Power dissipation on the device is a function of clock rate and circuit configuration. Nat Semi suggests a value of 35 µW/gate/MHz be used. Output buffers driving large capacitive loads at high bit rates tend to dominate the power consumption of most options.

The array has 795 cells organized in 15 columns of 53 cells each. With three two-input gates/cell, there are 2385 gates (795 x 3). Nat Semi recommends that not more than 80% of the cells be used (a total of 1096 gates). This is to guarantee the 'routability' of a particular system.

Versions of the device with 1200 and 4800 gates are planned for release in the second half of 1983. (*National Semiconductor (UK) Ltd, 301 Harpur Centre, Horne Lane, Bedford, UK. Tel: (0234) 47147. Telex: 826209*)

Rair 8088-based micro aims at OEM and technical market

UK microcomputers company, Rair, has launched an 8/16-bit machine aimed at technical users and OEMs.

The multiuser 3/60S is based on the 8088 microprocessor. It has 256k of RAM, expandable to 1024k. Up to 16 terminal, peripheral and data communications devices can be connected using standard RS232 serial ports and an IEEE-488 parallel bus. Transfer rates are 19 200 baud and 800 kbyte/s respectively.

There is an integral 5¼-in Winchester disc giving an unformatted capacity of 19 Mbyte. A 5¼-in floppy has a further 1 Mbyte. The operating system is MP/M-86 supporting BASIC, COBOL, and PASCAL. (*Rair Ltd, Wellington House, Upper St Martins Lane, London WC2, UK. Tel: 01-836 6921*)